

# Specifications — ISS 506 Series

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## Video input

Number/signal type.....	4 RGBHV, RGBS, RGsB, component video (interlaced or progressive), S-video, composite video 1 component video (interlaced), S-video, composite video 1 S-video, composite video, or optional digital component video (SDI or HDSDI)
Connectors .....	4 x 5 female BNC 1 x 3 female BNC, 1 female 4-pin mini DIN 1 optional BNC for SDI/HDSDI
Nominal level .....	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels.....	Analog: 0.0 V to 2.0 Vp-p with no offset at unity gain
Impedance.....	75 ohms
Horizontal frequency.....	Autoscan 15 kHz to 100 kHz
Vertical frequency.....	Autoscan 50 Hz to 120 Hz
Resolution range .....	Autoscan 640x480 to 1600x1200
Return loss.....	-30 dB @ 5 MHz
DC offset (max. allowable).....	0.5 V

## Video processing

Encoder (for scan converted output)	10 bit digital
Digital sampling (for program and preview outputs)	24 bit, 8 bits per color; 162 MHz standard
Colors (for program and preview outputs)	16.78 million
Horizontal filtering (for scan converted output)	3 levels
Vertical filtering (for scan converted output)	3 levels
Encoder filtering (for scan converted output)	3 levels

## Video output

Number/signal type.....	2 scaled RGBHV, RGBS, RGsB, HD YUV component video program outputs 1 scaled RGBHV, RGBS, RGsB, HD YUV component video preview output 1 optional DVI, HDSDI (SMPTE 292 M), or scan converted output (interlaced component video, S-video, composite video)
Connectors .....	(2) 15-pin HD (1 for preview output, 1 for program output) 5 BNC female (for program output)
Nominal level .....	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels.....	0.0 V to 0.7 Vp-p (RGB) 0.0 V to 1.0 Vp-p (component video, G of RGsB)
Impedance.....	75 ohms
Scaled resolution .....	640x480 <sup>1,2,3,4,5,6</sup> , 800x600 <sup>1,2,3,4,5,6</sup> , 852x480 <sup>1,2,3,4,5</sup> , 1024x768 <sup>1,2,3,4</sup> , 1024x852 <sup>1,2,3,4</sup> , 1024x1024 <sup>1,2,3</sup> , 1280x768 <sup>1,2,3,4</sup> , 1280x1024 <sup>1,2,3</sup> , 1360x765 <sup>1,2,3</sup> , 1365x768 <sup>1,2,3</sup> , 1365x1024 <sup>1,2</sup> , 1366x768 <sup>1,2,3</sup> , 1400x1050 <sup>1,2</sup> , 1600x1200 <sup>1,2</sup> , 1864x1050 <sup>1,2</sup> , HDTV 480p <sup>2,10</sup> , 576p <sup>1,5</sup> , 720p <sup>1,2,8,9,10</sup> , 1080p <sup>1,2,7,8,9,10</sup> , and 1080i <sup>1,2,10</sup> <sup>1</sup> = at 50 Hz; <sup>2</sup> = at 60 Hz; <sup>3</sup> = at 72 Hz; <sup>4</sup> = 96 Hz; <sup>5</sup> = 100 Hz; <sup>6</sup> = 120 Hz; <sup>7</sup> = 24 Hz; <sup>8</sup> = 25 Hz; <sup>9</sup> = 30 Hz; <sup>10</sup> = 59.94 Hz;
Return loss.....	-30 dB @ 5 MHz
DC offset.....	±25 mV with input at 0 offset (except for RGsB and component video)
Switching type.....	Seamless switching (cut or dissolve)

## Specifications — ISS 506 Series, cont'd

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### Sync

Input type.....	Autodetect RGBHV, RGBS, RGsB
Output type.....	RGBHV, RGBS, RGsB Tri-level on Y, R-Y, B-Y channels of component video or bi-level on Y channel of component video (selectable)
Standards.....	NTSC 3.58, NTSC 4.43, PAL, SECAM Optional SDI/HDSDI input: SMPTE 259M-C, SMPTE 292M
Input level .....	0.0 V to 5.0 Vp-p 0.0 V to 0.6 Vp-p for component video with tri-level sync
Output level .....	TTL: 5.0 V p-p, unterminated
Input impedance .....	510 ohms
Output impedance .....	75 ohms
Max. input voltage .....	5.0 Vp-p
Polarity.....	Positive or negative (selectable)

### Audio

Gain.....	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response .....	20 Hz to 20 kHz, $\pm 0.05$ dB
THD + Noise.....	0.05% @ 1 kHz at +4 dBu and 0 dB gain
S/N.....	>83 dB (typical) at maximum output (unweighted)
Crosstalk.....	<-80 dB @ 1 kHz, fully loaded
Stereo channel separation .....	>90 dB @ 1 kHz
CMRR.....	>75 dB @ 1 kHz

### Audio input

Number/signal type.....	6 stereo, balanced/unbalanced
Connectors .....	(6) 3.5 mm captive screw connectors, 5 pole
Impedance.....	>10k ohms unbalanced/balanced, DC coupled
Nominal level .....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level.....	+19.5 dBu, (balanced or unbalanced) at 1% THD+N
Input gain adjustment .....	-18 dB to +24 dB
Audio delay compensation (automatic)	20 ms when scaling RGB computer video or HDTV component video 75 ms when scaling NTSC component video, S-video, or composite video 90 ms when scaling PAL component video, S-video, or composite video

**NOTE** 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV  $\approx$  2 dBu

### Audio output

Number/signal type.....	3 stereo, balanced/unbalanced (2 program, 1 preview)
Connectors .....	(3) 3.5 mm captive screw connector, 5 pole
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Gain error .....	$\pm 0.5$ dB channel to channel
Maximum level (Hi-Z) .....	>+21 dBu, balanced or unbalanced at 1% THD+N
Maximum level (600 ohm).....	>+15 dBm, balanced or unbalanced at 1% THD+N

### Control/remote — switcher

Serial control ports.....	1 RS-232/RS-422: 1 rear panel 9-pin female D connector 1 RS-232: 1 front panel 2.5 mm mini stereo jack
Baud rate and protocol.....	9600 (default), 19200, 38400, 115200 baud; 8 data bits; 1 stop bit; no parity

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#### Serial control pin configurations

9-pin female D connector.....	RS-232: 2 = TX, 3 = RX, 5 = GND RS-422: 2 = TX-, 3 = RX-, 5 = GND, 7 = RX+, 8 = Tx+
Mini stereo jack.....	RS-232: tip = TX, ring = RX, sleeve = GND
Ethernet control port.....	1 RJ-45 female connector
Ethernet data rate.....	10/100Base-T, half/full duplex with autodetect
Ethernet protocol.....	ARP, DHCP, ICMP (ping), TCP/IP, UDP/IP, Telnet, HTTP, SMTP
Ethernet default settings .....	Link speed and duplex level = autodetected IP address = 192.168.254.254 Subnet mask = 255.255.0.0 Gateway = 0.0.0.0 DHCP = off
Web server.....	Up to 200 simultaneous sessions 16 MB nonvolatile user memory
Program control.....	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer® ver. 6 or higher, Netscape® Navigator®, Telnet

#### General

Power .....	100 VAC to 240 VAC, 50/60 Hz, 45 watts, internal
Temperature/humidity .....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Mounting	
Rack mount .....	Yes, with included brackets
Enclosure type .....	Metal
Enclosure dimensions.....	3.5" H x 17.5" W x 12.0" D (2U high, full rack wide) 8.9 cm H x 44.4 cm W x 30.5 cm D (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight .....	8.5 lbs (3.9 kg)
Shipping weight .....	18 lbs (9 kg)
DIM weight	
USA/Canada .....	15 lbs (7 kg)
International.....	18 lbs (8 kg)
Vibration.....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety.....	CE, CUL, UL
EMI/EMC .....	CE, C-tick, FCC Class A, ICES, VCCI
MTBF.....	30,000 hours
Warranty .....	3 years parts and labor

**NOTE** All nominal levels are at  $\pm 10\%$ .

**NOTE** Specifications are subject to change without notice.

7.6-100708-D5